

## CLAIMS

1. A method of operating a projection-type system configured to pass light emitted from a high-pressure discharge lamp lit by d.c. lighting through divided plural color segments of a color filter sequentially to project an image onto a screen, characterized by superimposing a pulse current on a d.c. lamp current in synchronism with at least one specific color segment.
2. A projection-type system for projecting an image onto a screen by passing light emitted from a high-pressure discharge lamp lit by d.c. lighting through divided plural color segments of a color filter sequentially, characterized by comprising the high-pressure discharge lamp, and d.c. lighting means for lighting the high-pressure discharge lamp by feeding a d.c. lamp current to the high-pressure discharge lamp while superimposing a pulse current on the d.c. lamp current periodically, the pulse current being superimposed in synchronism with at least one specific color segment.
3. The projection-type system and the method of operating the same according to claim 1 or 2, wherein the color filter comprises a rotatable color wheel divided into divided segments on a color basis.
4. The projection-type system and the method of operating the same according to any one of claims 1 to 3, wherein: the color filter comprises divided four color



segments which are colored red, green, blue and white, respectively; and the pulse current is superimposed within confines of the white segment.

5           5. The projection-type system and the method of operating the same according to any one of claims 1 to 3, wherein: the color filter comprises divided three color segments which are colored red, green and blue, respectively; and the pulse current is superimposed within confines of the red segment.

10           6. The projection-type system and the method of operating the same according to any one of claims 1 to 5, wherein a pulse superimposing power fed to the high-pressure discharge lamp is not less than 1% of a rated power of the high-pressure discharge lamp.

15           7. The projection-type system and the method of operating the same according to any one of claims 1 to 6, wherein: a pulse repetition period ( $t_s$ ) of the pulse current ( $P$ ) is determined to fall within a range from 0.2 msec to 20 msec; a ratio ( $I_p/I_o$ ) of a mean pulse height ( $I_p$ ) of the pulse  
20   current ( $P$ ) to a mean current value ( $I_o$ ) of the lamp current is determined to fall within a range from 0.1 to 2; and a ratio ( $t_p/t_s$ ) of an effective pulse width ( $t_p$ ) of the pulse current ( $P$ ) to the pulse repetition period ( $t_s$ ) of the pulse  
25   current ( $P$ ) is determined to fall within a range from 0.005 to 0.5.